

General Description: A desk-top stereo cassette tape recorder for mains operation only. Sockets are provided for the connection of microphones, auxiliaries and line outputs. A Philips dynamic noise limiter circuit is incorporated and motor speed control is by integrated circuit.

Mains Supplies: 110–127/220–240 volts, 50Hz.

Dismantling

Cabinet:

Lower Cabinet: Remove the four mounting screws from the lower cabinet.

Print together with Tape-deck: For removing print and tape-deck, take out three PCB screws and two deck screws.

Note: When re-mounting the print, take care that the switches are in the correct positions.

BU1, BU3 and BU4: Slightly push-up the unit, then lift it from bracket.

Switch-unit (DNL in Mono/Stereo): Straighten two tags of bracket, then slightly push-down the unit.

Transformer T1: Is fixed to the upper cabinet by means of a snap-connection.

Cassette Cover: Push the tag on the right-hand side of the cassette cover outwards.

The cassette cover as a whole, can now be removed.

Note: When re-mounting the cover, take care that spring is in the right place in the cassette cover.

Tape-deck:

Left-hand Carrier: Remove circlip and counter-belt.

Right-hand Carrier: Remove circlip.

Note: Carrier consists of a friction coupling and a contact spring for automatic stop. Print SK8 under this carrier is fixed to the chassis by means of a snap-connection.

Pressure Roller: Remove circlip.

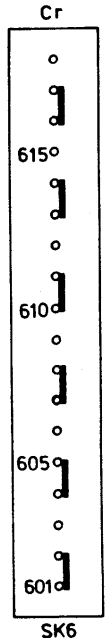
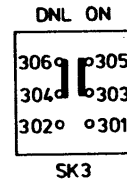
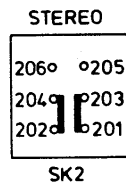
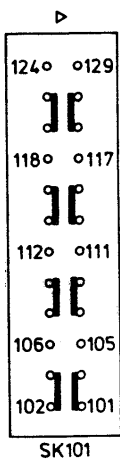
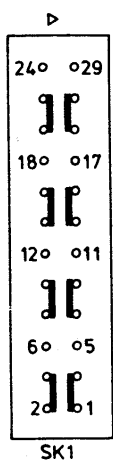
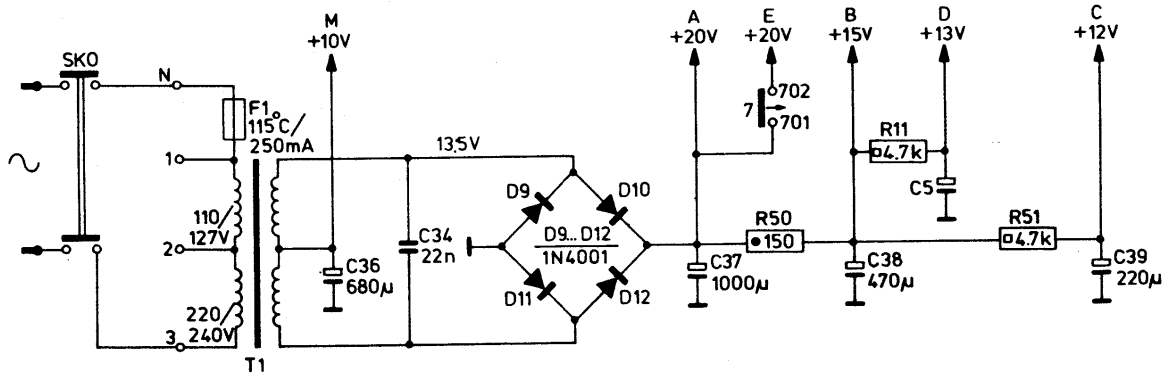
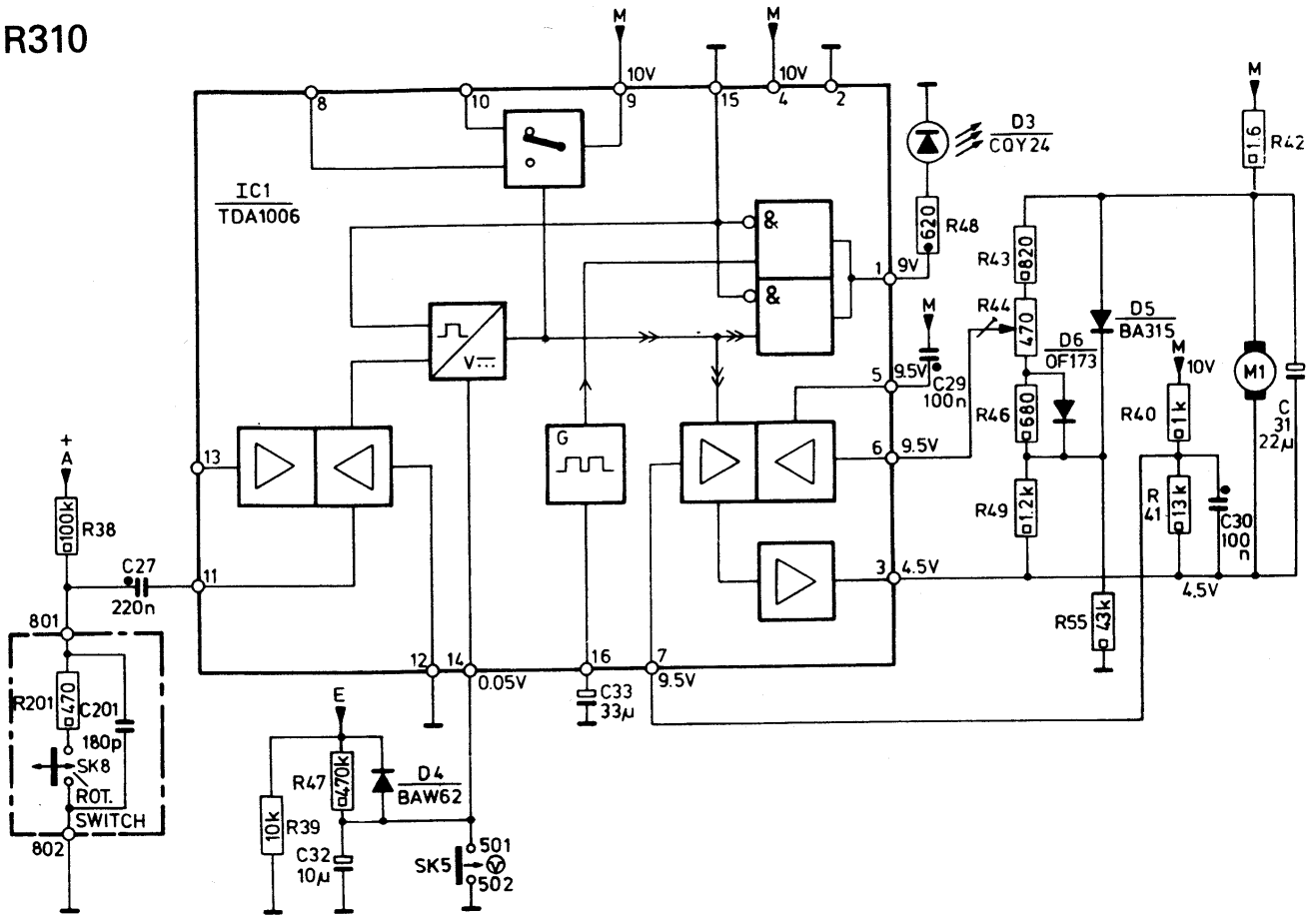
Note: The pressure force is determined by pressure spring. When de-mounting the pressure roller, take care that this spring does not shoot off.

Control Keys: Remove spring of the stop key. Bend the tag, on the left-hand side of the key-bar, slightly outwards. The control key unit, as a whole, can now be removed.

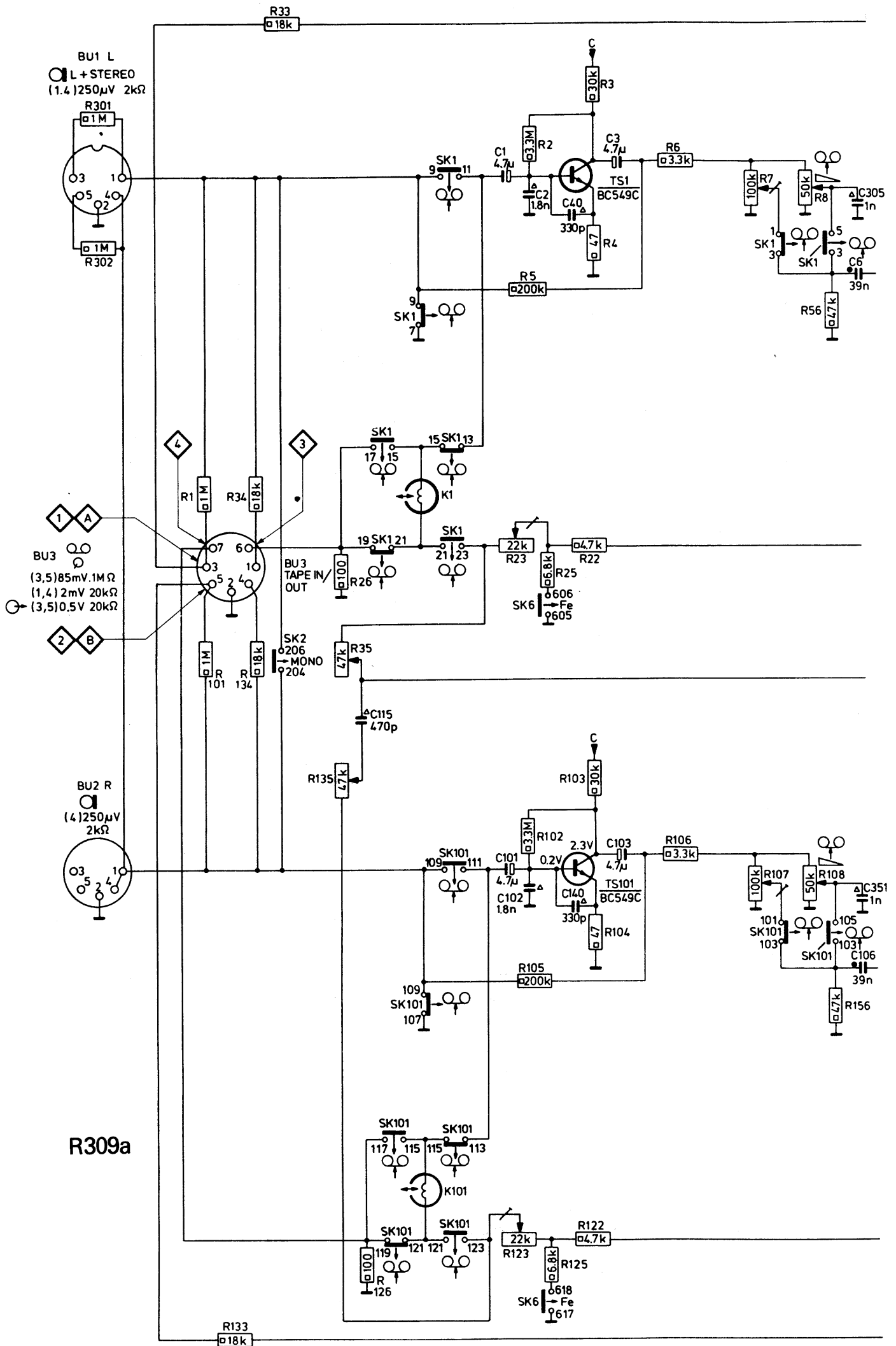
Adjustments and Checks

Adjusting the Mains Voltage: To make the cassette recorder suitable for 100/127V, the wire of point 3 of T1 should be re-soldered to point 2 of T1.

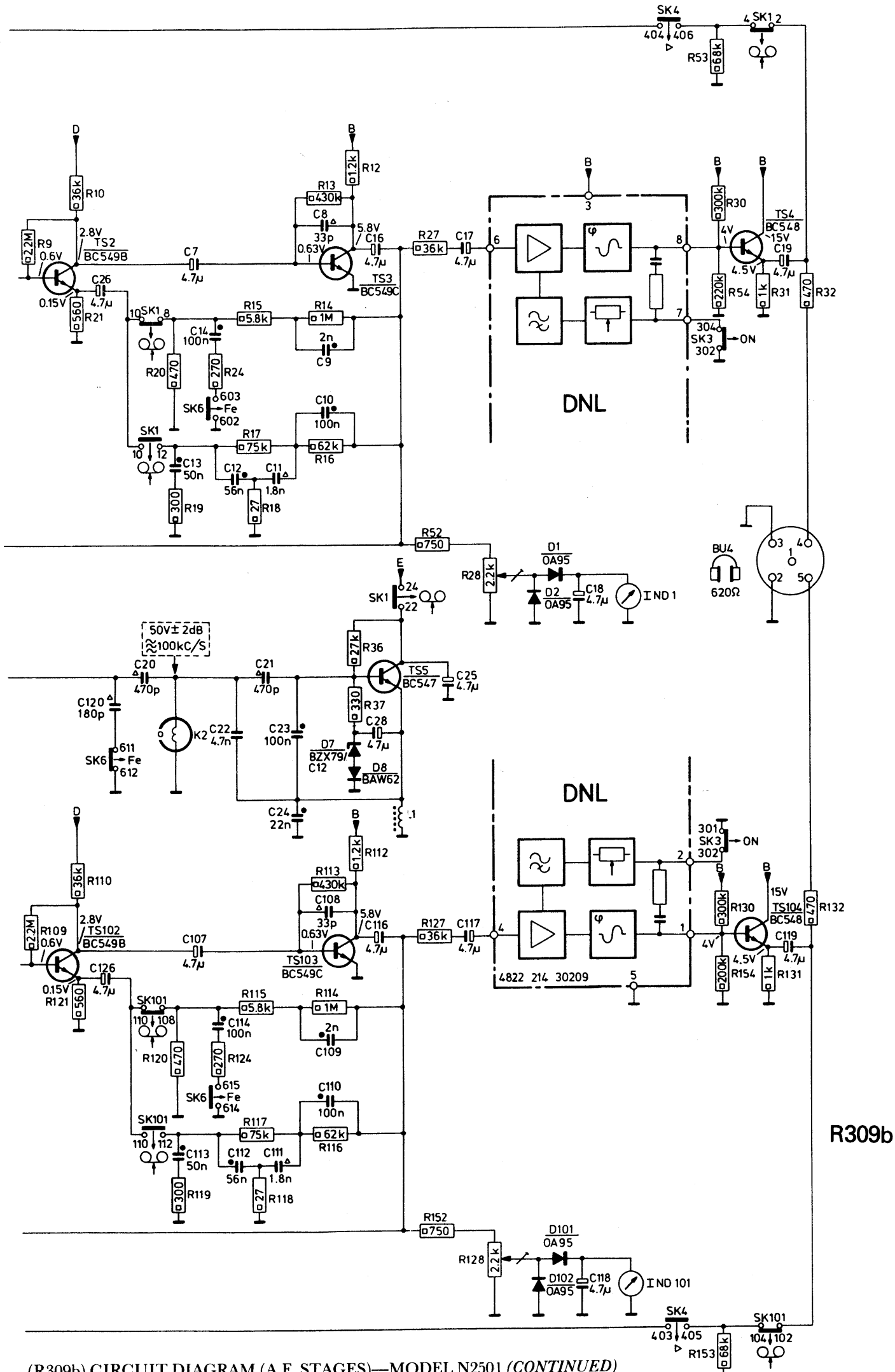
R310



(R310) CIRCUIT DIAGRAM (MOTOR CONTROL AND POWER STAGES)—MODEL N2501



(R309a) CIRCUIT DIAGRAM (A.F. STAGES)—MODEL N2501 (PART)



(R309b) CIRCUIT DIAGRAM (A.F. STAGES)—MODEL N2501 (CONTINUED)

Axial Play of Flywheel: The bearing adjustment should be turned in such a way that minimum play of the flywheel is obtained.

Azimuth Adjustment: Azimuth is adjusted with the screw on the side of erase head, using test cassette TC-QFR code 8945 600 13001.

The output voltage on point 3-2 (5/2) of BU3 should be adjusted to maximum, with the 10kHz signal of this test cassette.

The left- and right-hand signals should be in phase, this can be checked with a double-beam oscilloscope.

Tape Speed (using the Cassette Service Set):

Connect the service cassette service set to the recorder, via an amplifier.

Set the recorder to play-back position, using the 50Hz cassette from the cassette service set.

With R44, adjust the wow and flutter of the test indicator to minimum value.